

This listing of claims will replace all prior versions, and listings, of claims in the application:

II. Listing of Claims

1. (Currently Amended) An apparatus for and maintaining a wrist in a healing position comprising:

an external fixator having a first longitudinal axis, wherein a first end portion of the external fixator comprises a first bone connector assembly and a second end portion of the external fixator comprises a second bone connector assembly, the first and second bone connector assemblies each being operable to releasably couple to at least one bone pin or screw;

a first clamp assembly comprising:

a bracket operable to removably mount to an the external fixator, the external fixator having a first longitudinal axis; and

a connector rod fastener disposed on the bracket, the connector rod fastener comprising a clamp assembly base seated on the bracket and a clamp assembly head disposed over the clamp assembly base, the clamp assembly base and head being operable to receive a connector rod having a second longitudinal axis, whereby the first longitudinal axis is in a spaced relation with the second longitudinal axis when the connector rod is received in the connector rod fastener to permit extension of the connector rod across a human's extremity in the radial to ulnar direction;
and

a second clamp assembly operable to releasably couple to at least one bone pin or screw;
and

wherein the connector rod is operable to join the first clamp assembly to the second clamp assembly.

2. (Currently Amended) The apparatus of Claim 1 further comprising wherein the external fixator is operable to be attached to a human's radius and the second clamp assembly is operable to be coupled to a bone pin embedded in a human's ulna.

3. (Currently Amended) The apparatus of Claim 1 further comprising wherein the external fixator is operable to be attached to a human's radius and the second clamp assembly is operable to be coupled to a bone pin embedded in at least one metacarpal bone of a human.

4. (Currently Amended) The apparatus of Claim 1 further comprising wherein the apparatus is formed of at least one of a group consisting of stainless steel, titanium, plastic and radiolucent material.

5. (Currently Amended) The apparatus of Claim 1 further comprising wherein the external fixator, the first clamp assembly and the second clamp assembly are operable to maintain a human's radius and ulna bones in a neutral position.

6. (Currently Amended) The apparatus of Claim 1 further comprising wherein the external fixator, the first clamp assembly and the second clamp assembly are operable to maintain a human's radius and ulna bones in a supinated position.

7. (Currently Amended) The apparatus of Claim 1 further comprising wherein the external fixator, the first clamp assembly, second clamp assembly and the connector rod are operable to limit mobility of a human's radius and ulna bones by positioning the radius and ulna bones.

8. (Currently Amended) The apparatus of Claim 1 further comprising wherein the external fixator, the first clamp assembly and the second clamp assembly are operable to allow supination and pronation of the radius and ulna bones to be limited by intraoperative manipulation of the apparatus.

9. (Canceled)

10. (Currently Amended) The apparatus of Claim 1 wherein the second clamp assembly comprises:

a fastener operable to releasably engage at least one bone pin embedded in a bone of a human's arm; and

~~the~~ a second fastener operable to releasably hold the connector rod and a clamp assembly head.

11. (Currently Amended) The apparatus of Claim 1 wherein the second clamp assembly comprises:

a fastener operable to releasably engage at least one bone pin embedded in a bone of a human's hand; and

~~the a second~~ fastener operable to releasably hold the connector rod and a clamp assembly head.

12. (Original) The apparatus of Claim 1 wherein the apparatus is positioned to reduce bony fragments and maintain the bony fragments in position.

13. (Currently Amended) An apparatus for maintaining a healing position of one or more bones of a human's arm comprising:

an external fixator having a first longitudinal axis, wherein a first end portion of the external fixator comprises a first bone connector assembly and a second end portion of the external fixator comprises a second bone connector assembly, the first and second bone connector assemblies each being operable to releasably couple to at least one bone pin or screw coupled to a radius of a human;

a first clamp assembly comprising:

a bracket operable to removably mount to ~~an the~~ external fixator ~~coupled to a radius of a human, the external fixator having a first longitudinal axis;~~ and a connector rod fastener disposed on the bracket, the connector rod fastener comprising a clamp assembly base seated on the bracket and a clamp assembly head disposed over the clamp assembly base, the clamp assembly base and head being operable to receive a connector rod having a second longitudinal axis, whereby the first longitudinal axis is in a spaced relation with the second longitudinal axis when the connector rod is received in the connector rod fastener to permit extension of the connector rod across a human's extremity in the radial to ulnar direction;
and

a second clamp assembly operable to releasably couple to at least one bone pin or screw; and

wherein the connector rod is operable to releasably join the first clamp assembly to the second clamp assembly.

14. (Previously Presented) The apparatus of Claim 13 wherein the bracket is U-shaped.

15. (Original) The apparatus of Claim 13 wherein the second clamp assembly comprises a rotatable fastener configured to couple the second clamp assembly to the connector rod and the second clamp assembly further comprising a releasable clamp operable to engage a bone pin or screw embedded in a human's bone.

16. (Canceled)

17. (Original) The apparatus of Claim 13 wherein the second clamp assembly comprises a releasable fastener operable to engage at least one bone pin or screw embedded in a bone of a human's arm and a fastener operable to hold the connector rod and a clamp assembly head.

18. (Canceled)

19. (Currently Amended) An apparatus for maintaining a healing position of one or more bones of a human's wrist wherein at least one bone of the human's wrist is injured comprising:

an external fixator having first and second end portions, wherein the first end portion comprises a first bone connector assembly and the second end portion comprises a second bone connector assembly, the first and second bone connector assemblies each being operable to releasably couple to at least one bone pin or screw;

a first clamp assembly comprising:

a bracket operable to removably mount to ~~an~~ the external fixator;

a fastener base disposed on the bracket, the fastener base being operable to

receive a connector rod, whereby the connector rod is in an elevated position relative to the external fixator to permit extension of the connector rod across a human's extremity in the radial to ulnar direction;
and

a clamp assembly head disposed over the fastener base and operable to engage the connector rod, and thereby lock the connector rod in place; and

a second clamp assembly operable to releasably couple to at least one bone pin or screw; and

wherein the connector rod is operable to join the first clamp assembly to the second clamp assembly.

20. (Canceled)

21. (Original) The apparatus of Claim 19 wherein the second clamp assembly comprises: a releasable fastener operable to engage at least one bone pin or screw embedded in a bone of a human's wrist; and

a fastener operable to hold the connector rod and a clamp assembly head.

22. (Currently Amended) The apparatus of Claim 19 ~~further comprising~~ wherein the external fixator is operable to be attached to a radius bone of a human.

23. (Currently Amended) The apparatus of Claim 19 ~~further comprising~~ wherein the external fixator is operable to be attached to at least one metacarpal bone of a human.

24. (Original) The apparatus of Claim 19 wherein the connector rod comprises a single longitudinal member.

25. (Original) The apparatus of Claim 19 wherein the connector rod comprises a first end with at least one prong operable to slidably attach to the first assembly clamp and a second end having a body operable to engage the second assembly clamp.

26. (Currently Amended) The apparatus of Claim 19, wherein the second clamp assembly further comprises:

a circular head having a central opening[[; and]] wherein the central opening is operable to engage the connector rod.

27. (Original) The apparatus of Claim 19 wherein the apparatus is positioned to reduce bony fragments.

28. (Original) The apparatus of Claim 19 wherein the apparatus is positioned to maintain position of injured soft tissue.

29. (Currently Amended) An apparatus for reducing bony fragments and maintaining a healing position for at least one bone or soft tissue of a human's wrist or hand comprising:

an external fixator having first and second end portions, wherein the first end portion comprises a first bone connector assembly and the second end portion comprises a second bone connector assembly, the first and second bone connector assemblies each being operable to releasably couple to at least one bone pin or screw embedded in a radius of a human;

a first clamp assembly comprising:

a bracket operable to removably mount to an external fixator, ~~the external fixator being operable to couple to a radius of a human and having a first longitudinal axis;~~

a connector rod fastener disposed on the bracket, the connector rod fastener comprising a clamp assembly base seated on the bracket and a clamp assembly head disposed over the clamp assembly base, the clamp assembly base and head being operable to receive a connector rod having a second longitudinal axis, whereby the first longitudinal axis is in a spaced relation with the second longitudinal axis when the connector rod is received in the connector rod fastener to permit extension of the connector rod across a human's extremity in the radial to ulnar direction; and

a second clamp assembly comprising a rotatable fastener configured to couple the second clamp assembly to the connector rod and the second clamp assembly further comprising a releasable clamp operable to engage a bone pin or screw; and

wherein the connector rod is operable to releasably join the first clamp assembly to the second clamp assembly.

30. (Currently Amended) An apparatus for maintaining a healing position of one or more bones of a human's wrist wherein at least one bone of the human's wrist requires fixation comprising:

an external fixator having first and second end portions, wherein the first end portion comprises a first bone connector assembly and the second end portion comprises a second bone connector assembly, the first and second bone connector assemblies each being operable to releasably couple to at least one bone pin or screw embedded in a radius of a human;

a first clamp assembly comprising:

a U-shaped bracket operable to removably mount to an external fixator, ~~the external fixator being operable to couple to a radius of a human and having a first longitudinal axis;~~

a connector rod fastener disposed on the bracket, the connector rod fastener comprising a clamp assembly base seated on the bracket and a clamp assembly head disposed over the clamp assembly base, the clamp assembly base and head being operable to receive a connector rod having a second longitudinal axis, whereby the first longitudinal axis is in a spaced relation with the second longitudinal axis when the connector rod is received in the connector rod fastener to permit extension of the connector rod across a human's extremity in the radial to ulnar direction; and

a second clamp assembly operable to releasably couple to at least one bone pin or screw, the second clamp assembly comprising a releasable fastener operable to engage at least one bone pin or screw, a releasable rotatable fastener operable to hold the connector rod in position and a clamp assembly head operable to secure the second clamp assembly; and

wherein the connector rod is operable to releasably join the first clamp assembly to the second clamp assembly.

31. (Currently Amended) A method of maintaining a human's wrist or hand in a healing position comprising:

providing an external fixator having a first longitudinal axis, wherein the first end portion comprises a first bone connector assembly and the second end portion comprises a second bone connector assembly, the first and second bone connector assemblies each being operable to releasably couple to at least one bone pin or screw;

coupling each of the first and second bone connector assemblies to at least bone pin or screw embedded in a radius bone of a wrist, thereby attaching the external fixator to the radius bone of a the wrist;

providing a first clamp assembly comprising a bracket operable to removably mount to the external fixator and a connector rod fastener disposed on the bracket, the connector rod fastener comprising a clamp assembly base seated on the bracket and a clamp assembly head

disposed over the clamp assembly base, the clamp assembly base and head being operable to receive a connector rod having a second longitudinal axis, whereby the first longitudinal axis is in a spaced relation with the second longitudinal axis when the connector rod is received in the connector rod fastener to permit extension of the connector rod across a human's extremity in the radial to ulnar direction;

releasably mounting the bracket to the external fixator;

releasably attaching a second clamp assembly to at least one bone pin or screw embedded in a bone of a human; and

joining the first clamp assembly to the second clamp assembly with the connector rod.

32. (Original) The method of Claim 31 further comprising limiting the degree of supination and pronation of a human's radius and ulna bones by positioning the first clamp assembly, second clamp assembly and connector rod relative to the human's radius and ulna bones.

33. (Original) The method of Claim 31 further comprising reducing bony fragments of an extremity.

34. (Currently Amended) A method of maintaining a human's wrist or hand in a healing position comprising:

providing an external fixator having a first longitudinal axis, wherein the first end portion comprises a first bone connector assembly and the second end portion comprises a second bone connector assembly, the first and second bone connector assemblies each being operable to releasably couple to at least one bone pin or screw;

coupling each of the first and second bone connector assemblies to a bone pin or screw embedded in a radius bone of a wrist, thereby attaching ~~an~~ the external fixator to the radius bone of a the wrist;

removably mounting a bracket to the external fixator, the bracket having a fastener base disposed thereon;

receiving a connector rod onto the fastener base, whereby the connector rod is in an elevated position relative to the external fixator to permit extension of the connector rod across a human's extremity in the radial to ulnar direction;

disposing a clamp assembly head over the fastener base such that the clamp assembly head engages the connector rod, thereby locking the connector rod in place;

releasably attaching a clamp assembly to at least one bone pin or screw embedded in a bone of a human; and

joining the clamp assembly with the connector rod.

35. (Canceled)

36. (Canceled)

37. (Previously Presented) The method of Claim 34, wherein the bracket, fastener base and clamp assembly cooperate to define at least a portion of a first clamp assembly, wherein the method further comprises limiting the degree of supination and pronation of a human's radius and ulna bones by positioning the first clamp assembly, second clamp assembly and connector rod relative to the human's radius and ulna bones.

38. (Previously Presented) The apparatus of Claim 1 wherein the second clamp assembly comprises a rotatable fastener configured to couple the second clamp assembly to the connector rod and the second clamp assembly further comprising a releasable clamp operable to engage a bone pin or screw embedded in a human's bone.

39. (Previously Presented) The apparatus of Claim 19 wherein the second clamp assembly comprises a rotatable fastener configured to couple the second clamp assembly to the connector rod and the second clamp assembly further comprising a releasable clamp operable to engage a bone pin or screw embedded in a human's bone.